

CLAIMS

1. A scribing head comprising:

a scribing line forming means structured so as to form a scribing line on a substrate; and

a moving means for moving the scribing line forming means such that the scribing line forming means presses the substrate with a constant magnitude, wherein

the moving means includes:

a rotation means rotating about a rotation axis, the axial center of the rotation axis being provided so as to align with a predetermined direction in which the scribing line forming means moves, and

a motive power transmission means for transmitting a motive power between the motive power transmission means and the scribing line forming means such that the scribing line forming means moves on a straight line along the axial center of the rotation axis in response to the rotation of the rotation means, the motive power transmission means being provided along the predetermined direction.

2. A scribing head according to claim 1, wherein while the motive power transmission means continues the transmission of motive power between the motive power transmission means and the scribing line forming means, the scribing line forming means forms the scribing line on the substrate.

3. A scribing head according to claim 1, wherein the motive power transmission means is structured such that the transmission efficiency of the force to be

transmitted to the scribing line forming means from the motive power transmission means and the transmission efficiency of the force to be transmitted to the motive power transmission means from the scribing line forming means are approximately the same.

4. A scribing head according to claim 2, wherein the motive power transmission means includes a face which is tilted by approximately 45 degrees with respect to the circumferential direction of the rotation axis along a direction in which the motive power transmission means rotates.

5. A scribing head according to claim 1, wherein the motive power transmission means includes a cylindrical cam.

6. A scribing head according to claim 1, wherein the motive power transmission means includes a ball screw.

7. A scribing head according to claim 1, wherein the substrate is a kind of substrate among a glass plate, a glass substrate, a quartz plate, a quartz substrate, a sapphire plate, a sapphire substrate, a semiconductor wafer, a ceramic plate, a ceramic substrate, a solar cell substrate, a liquid crystal display panel, an organic EL panel, an inorganic EL panel, a transmissive projector substrate and a reflective projector substrate.

8. A scribing apparatus comprising:
at least one scribing head according to claim 1; and

a first moving means for moving the scribing head on a surface such that the scribing line forming means forms the scribing line on the substrate, the surface being approximately parallel to the substrate.

9. A scribing apparatus according to claim 7, wherein at least two scribing heads of the at least one scribing head according to claim 1 are provided approximately parallel to a scribing direction.